

## **Meeting Notes**

### **Mapping & Assessment Subcommittee Governor's Forest Health Advisory and Oversight Councils**

**Wednesday, November 17, 2004, 9:30 a.m.  
Tonto National Forest Supervisor's Office Conference Room  
2324 E. McDowell Road, Phoenix, AZ**

#### **Present:**

Barron Orr, University of Arizona (M&A Subcommittee Co-Chair)  
Gene Trobia, ASLD, State Cartographers Office  
Don VanDriel, Tonto National Forest  
Jayson Coil, Sedona Fire District  
Ed Paul, Tonto National Forest  
Marc Kaplan, Coronado National Forest  
Glen Buettner, ASLD, State Cartographers Office  
Robb Beery, Payson Fire Department  
Cliff Pearlberg, ASLD, Forestry  
Carolyn Williams, Tonto National Forest  
Susan Gorman, Tonto National Forest  
Marty Moore, Environmental Economic Communities Organization (EECO)  
Jason Howard, ASLD, State Cartographers Office  
Jeff Whitham, Yavapai County GIS

#### **Contributions via e-mail:**

Kirk Rowdabaugh, State Forester  
Tom Swetnam, University of Arizona  
Tom Sisk, Northern Arizona University  
Taylor McKinnon, Grand Canyon Trust  
Dave Wilson, BLM

#### **Summary of Agenda:**

1. Recent developments impacting M&A Subcommittee
2. Status of Arizona FIRE MAP – Phase 1.
3. Discussion on the structure (particularly the vacant Chair) and objectives of the M&A Subcommittee.
4. Recommendations to the Forest Health Advisory Council on a new person (or persons) to fill the Chair and a structure to support the efforts of the subcommittee (e.g. working groups, etc.).
5. Recommendations to the Forest Health Advisory Council on the objectives the M&A Subcommittee should pursue.
6. Other business.
7. Next meeting.

**Call to Order** (Barron Orr called the meeting to order at 9:35 am)

## Minutes:

### 1. Barron Orr, current Co-Chair, reviewed recent developments impacting the M&A Subcommittee.

- a. The Chair of the M&A Subcommittee, Kathy Hemenway, has resigned from her post for medical reasons. The Subcommittee members expressed their concern for Kathy.
- b. The Subcommittee members agreed to the Agenda focused on filling the considerable void this development created.

### 2. Arizona FIRE MAP Status Report

- a. Glen Buettner reviewed the status of fuels treatment spatial and tabular data integration and the database design and development process for Arizona FIRE MAP – Phase 1. “Arizona FIRE MAP” stands for Arizona Fuels, Information, Restoration, and Education Mapping and Assessment Program. The prototype for a web-based interactive map is being developed courtesy of funding from Arizona Department of Emergency and Military Affairs (through the State Forester, State Lands Department, and the State Cartographer’s Office).
- b. Glen reported that the overall database conceptual design is virtually complete, thanks to considerable effort by Kathy Hemenway, the State Cartographer’s Office (SCO) and some feedback from the programming team at the University of Arizona (UA).
- c. Discussion on the impact of Kathy Hemenway’s resignation.
- d. SCO will continue to manage this project.
- e. SCO will continue with the needs assessment Kathy Hemenway had all but completed.
- f. SCO will begin data collection of the Phase 1 prototype.
- g. Susan Gorman requested guidelines on data formats as early as possible.
- h. Discussion on the extent of the data sets and formats and the focus on fuels treatments for Phase 1.
- i. Glen Buettner and Barron Orr reported that Kathy Hemenway had made considerable progress in documented a “normalization” strategy for disparate data sets (e.g. how to make NFPORS data categories line up with a data set coming in from a CWPP area).
- j. Request was made of Glen Buettner and Gene Trobia that they provide M&A members (and other data providers) with a template of data types / formats by the end of November 2004.

#### i. ACTION ITEM

- k. Gene Trobia recommended that the template for Phase 1 be “minimalist” with clear connections to original data.
- l. This point was discussed in detail, with consensus that Arizona FIRE MAP Phase 1 needs to deliver information that is common across all data sets, and it needs to deliver the most fundamental information (name of project, contact name, area treated, etc.).
- m. Cliff Pearlberg emphasized the importance that Arizona FIRE MAP ultimately be able to handle key information about on-the-ground activities in communities (e.g. Firewise Recognition designations, etc.).
- n. Marty Moore raised the question “Will Arizona FIRE MAP Phase 1 include information on the effectiveness of treatments – that is, are the treatments accomplishing fire hazard reduction or creating defensible space?”
- o. Detailed discussion about effectiveness of treatments. Points raised included

- i. each project is assessed in entirely different ways,
  - ii. most focus on home site assessments (more detail than will be captured in Phase 1)
  - iii. Risk Reduction and FRCC measures of restoration or only now being implemented
  - iv. Standards in quality of treatment / fuels reduction impact across projects must be adopted (policy issue?) before these could added with confidence to an on-line database in future phases of Arizona FIRE MAP.
  - v. One proposal – policy folks should consider assessments of individual treatments and gauge the effectiveness of the treatments based on a set of agreed upon best practices.
- p. Gene Trobia clarified a) that the on-line product should not be confused with a desk-top GIS, and b) that the querying side of the database would focus on fuels treatments (what he called the “data set”), but that reference information would include class framework data layers (roads, admin boundaries, etc.) as well as CWPP boundaries, fire perimeters, WUI’s etc. (what he called the “context data layers”). The underlying database would be structured so that future development (Phase II or III), we permit the possibility of adding querying capabilities to these important topics.
- q. Consensus also that Phase 1 should focus on fuels treatments, and the project team should be cautious about “scope creep”.
  - i. **ACTION ITEM**
- r. General discussion about data set disparities, with consensus that Arizona FIRE MAP project team should report what these are as they are discovered so that recommendations can be made to the Advisory Council to encourage more common standards.
  - i. Would like to get polygons for all of the fuels treatments versus points.
  - ii. Cliff Pearlberg raised the capacity / resources issue, particularly for smaller communities. General consensus that any recommendations about standards would have to take into account the capacity issue.
  - iii. Standards/quality/consistency – we need to identify the needs that are not being met and what can be done to correct these shortcomings. Identify the needs that must be addressed and then tackle the project.
    - 1. **ACTION ITEM** (for a working group)
- s. Many reported that their contributions to Arizona FIRE MAP would be limited to pre-fire season. General consensus that Arizona FIREMAP must be done and that it must be done by June, 2005.
  - i. **ACTION ITEM**
- t. Phase II ideas / funding was discussed.
  - i. Gene Trobia reported that related projects may have an influence, but that all needed to begin the process of identifying funds for a Phase II.
    - 1. **ACTION ITEM**
  - ii. FEMA money has been requested (750,000) to get 1 meter imagery for the entire state and update all of the DOQQs (aerial photos).
- 3. Discussion on M & A Subcommittee Mission and Structure**
  - a. The M & A Subcommittee was created with the primary purpose of mapping fuels projects.
  - b. It has identified a number of other issues that must be addressed.

- c. Consensus – M&A Subcommittee is not a regulatory committee however we may identify a policy that could address the efficiency and effectiveness of mapping and assessment as these impact Forest Health
  - i. Example: lack of standards in data collection and reporting that has a negative effect on the outcome of a particular project or projects.
- d. Relationship of Arizona FIRE MAP and the role of the M&A Subcommittee was discussed.
- e. Consensus – Arizona FIREMAP is a project of the M&A subcommittee and it isn't a synonym for the M&A Subcommittee.
  - i. The AZ FIREMAP is a project, and at this time the primary project.
  - ii. there are a number of other projects that the M & A committee may tackle in the future.
- f. Consensus – the M&A Subcommittee should exist and carry on into the future as a subcommittee. It should be responsive to the requests of the Advisory Council.
- g. To fill Kathy Hemenway's shoes, the M&A Subcommittee will need a slightly different structure with active participation of its members.
- h. Consensus – the M&A Subcommittee should have a core of active members with representation across jurisdictions and interests (i.e., federal, state, tribal, local government as well as non-government organizations).
  - i. The M&A Subcommittee should continue to involve the broader interested audience (currently there are 90 people across Arizona who have made contributions to the M&A Subcommittee, primarily through Arizona FIRE MAP needs assessment conducted by Kathy Hemenway) and be as representative as possible, but to be practical, the core should be more formally active.
- i. Consensus -- the M&A Subcommittee should have a Chair and several Co-Chairs, each with different affiliations to help ensure broader representation across organizational and jurisdictional boundaries.
- j. Consensus – the M&A Subcommittee should attack the different mapping and assessment issues through working groups
  - i. Those working groups should be created and dissolved based upon need.
  - ii. Though informal in nature, they would report back to the Subcommittee on their activities.
- k. Consensus – Where a project (such as Arizona FIRE MAP) is necessary to address an issue, the M&A Subcommittee should spin it off as a self-contained project with its own internal / external reporting mechanisms.
  - i. In this sense the M&A Subcommittee would play more the role of an advisory board rather than project manager.
  - ii. It would also serve as a technical liaison between projects it helped create and the Advisory Council.
  - iii. The M&A Subcommittee would also work with the Advisory Council to identify funds to help launch such projects.

#### **4. Recommendations on Structure and Chair**

- a. Consensus – the M&A Subcommittee should attack the different projects through working groups.
  - i. These working groups should be semi-formal
    - 1. Convened upon need
    - 2. Volunteer basis

3. Self-organized, self-directed, though accepting feedback from the broader Subcommittee
4. Report back to M&A at subcommittee meetings
5. They should remain as long as the issue they address remains, but can be dissolved when the issues is considered addressed
6. Where inter-jurisdictional considerations exist, should try to find volunteers representing the relevant jurisdictions
- ii. **ACTION ITEM (the above points for Advisory Council to consider)**
- b. Proposed Working Groups and Current Volunteers
  - i. Geospatial Data Standards
    1. Gene Trobia, Ed Paul, Jayson Coil, Susan Gorman, Marc Kaplan
    2. **ACTION ITEM**
      - a. **Though time is very tight, this working group hopes to respond to the Advisory Council's request for some basic reporting recommendations relative to mapping by early January**
      - b. The M&A Subcommittee recognizes that this is a larger challenge than the time allows and thus they will focus on the most important types of information that all groups working on treatments should report.
  - ii. Assessment Standards
    1. Jayson Coil, Cliff Pearlberg, Robb Berry
  - iii. Data Provider Communications & Historical Data Issues
    1. Don VanDriel, Glen Buettner, Marc Kaplan
    2. Many proposed Jeff Cook (not present) if he is willing to participate
  - iv. CWPP Mapping Methods/Accuracy Assessment
    1. Robb Berry, Jeff Whitham, Jason Howard
    2. Many proposed Ethan Aumack (or someone else from NAU's ForestERA) if he is willing to participate
  - v. Website Coordination
    1. This working group was viewed as addressing a longer term goal and thus has not yet been fully formed
    2. Cliff Pearlberg volunteered to help get this one started
  - vi. Treatment Effectiveness (relative to mapping)
    1. Treatment effectiveness, from the perspective of mapping, may one day become an attribute (or series of attributes) added to the Fuels Treatments data base
    2. However, other aspects of the Advisory Council and its other subcommittees must first address issues that are not really within the control of the mapping / geospatial community
      - a. Standards/science behind effectiveness measures
      - b. Common reporting guidelines / formats
      - c. Verification
3. **ACTION ITEM (above points for the Advisory Council to consider)**
  4. This working group could be convened in the future once the Advisory Council gives guidance on this issues that were viewed

as somewhat beyond the control of the M&A Subcommittee members

vii. **ACTION ITEM (the above working groups for Advisory Council to consider)**

viii. **ACTION ITEM**

1. **The first 4 working groups began working (under the assumption this structure would be approved by the Advisory Council)**

ix. Arizona FIRE MAP was considered an independent project (rather than a working group) that will continue to report back to the M&A Subcommittee about its progress, challenges faced etc.

1. Glen Buettner and Gene Trobia agreed to continue to keep the M&A Subcommittee informed about Arizona FIRE MAP

c. Consensus – the M&A Subcommittee should have a Chair and several Co-Chairs

i. Help with the volume of work

ii. Help ensure inter-jurisdictional collaboration

iii. Committee Chair - Barron Orr was elected to the chair person

iv. It was agreed that we have a Co-chair from the state/federal/local level.

1. Marty Moore recommended Gene Trobia as the State representative.

2. Jayson Coil was suggested as the local rep.

3. Don VanDriel was the suggestion for the federal representative.

4. All were elected.

v. **ACTION ITEM (above structure / appointees for Advisory Council to consider)**

5. **Recommendations to the Forest Health Advisory Council on the objectives the M&A Subcommittee should pursue.**

a. This discussion really centered on major issues.

b. The M&A Subcommittee would like some guidance from the Advisory Council on prioritizing these issues so that we can then establish some objectives in addressing them

i. **ACTION ITEM (feedback from Advisory Council requested)**

ii. The M&A Subcommittee did identify priorities from the perspective of mapping and assessment challenges based on earlier Advisory Council requests – please see section 4 above for the Working Groups created to address these.

c. Issues Identified (in no particular order)

i. Spatial/tabular data standards & normalization

ii. Communication with major data providers

iii. Historical data and the importance of having it added to Arizona FIRE MAP in future phases

iv. Assessment Standards

v. Transparency in mapping methodologies, accuracy assessment, etc. used in CWPP, Firewise Recognition and any other forest health-related product used for decision making

1. While the Subcommittee felt many of the products out there are good, without some idea of methods and accuracy assessment, it

is very difficult to determine the utility of a mapping / spatial modeling product

- vi. Technology Capacity of Providers and Communities
- vii. ID most important fields and primary key of datasets
- viii. Future Quality/Effectiveness of treatments
  - 1. FireWise Recognition
  - 2. FRCC (measure of restoration)
  - 3. Risk Reduction (a federal measure)
- ix. Guidance for spin-off projects / grants / funds that address key data fields for reporting (such as the treatment effectiveness issue)
- x. Information sharing
- xi. Coordination and communication of projects within agencies that are compatible and avoid redundancy and duplicated effort.
- xii. Website coordination (dealing with redundancy/replication issues)
- xiii. Funding for Arizona FIRE MAP phases II and III

## **6. Other Business**

- a. Barron Orr reported that Wildfire Alternatives (WALTER) (<http://walter.arizona.edu>) research has culminated in a prototype strategic planning model called Fire-Climate-Society (FCS-1) that will enable decision makers to construct risk assessment maps under alternative climate scenarios and varying perspectives of values at risk.
- b. The model currently is made of up five “fire probability” and four “values at risk” model components. FCS-1 can be run under differing climate conditions and corresponding fuel moisture conditions.
- c. Through an Analytical Hierarchy Process (AHP), FCS-1 allows users to assign weights to individual model components through a series of one-on-one comparisons which graphically portray the relationship between multiple and potentially contrasting or incongruent elements of a complex problem.
- d. The on-line application can be used by an individual, and the models of a group of individuals can be merged to help understand differing views and build consensus.

## **7. Next Meeting**

- a. We scheduled our next meeting for January 4, 2005 to get the geospatial data reporting recommendations back to information to Kirk Rowdabaugh and the Advisory Council prior to their next meeting on January 13, 2005.
- b. Susan Gorman and Don VanDriel offered the use of the Tonto National Forest Supervisor's Office Conference Room for this meeting
- c. Tonto National Forest Supervisor's Office is located at 2324 E. McDowell Road, Phoenix, AZ)